

IN THE CLAIMS

1. (currently amended) A continuous method for the preparation of an aromatic carbonate compound, comprising the steps of: reacting a dialkyl carbonate and an aromatic hydroxy compound in the presence of a heterogeneous catalyst in a loop-type, catalyst containing reaction apparatus comprising a) a reactor equipped with a filter, which is located inside the reactor, for preventing the output of a heterogeneous catalyst and only outputting reaction solution; b) a reaction solution circulation pump that is connected to the side of the reactor on which the filter is equipped; c) a heat exchanger, which is connected between the reaction solution circulation pump and the reactor, for raising the temperature of the reaction solution that is supplied from the reaction solution circulation pump to a desired reaction temperature and evaporating it; and d) a distillation column, which is connected to the upper portion of the reactor, for separating the evaporated reactants that are generated in the reactor and the heat exchanger into high boiling point components and low boiling point components, and then condensing the high boiling point components to withdraw and direct them to the reactor and outputting the low boiling point components in a gaseous form.

providing a heterogeneous catalyst on a carrier in a loop-type reaction apparatus;

injecting a dialkyl carbonate or alkyl aryl carbonate compound and an aromatic hydroxyl compound into the loop-type reaction apparatus to provide a mixed reaction solution;

filtering the mixed reaction solution to provide a filtered solution which is free of the heterogeneous catalyst;

heating the filtered solution to a desired reaction temperature;

separating high boiling point components and low boiling point components;

outputting the low boiling point components in a gaseous form;

directing the high boiling point components back to the loop-type reaction apparatus; and

outputting the high boiling point components comprising the aromatic carbonate compound.

2. (original) The continuous method for the preparation of the aromatic carbonate of claim 1, wherein said heterogeneous catalyst is a supported catalyst wherein a transition metal oxide is supported on a carrier having a size of 1 to 20 mm.

3. (original) The continuous method for the preparation of the aromatic carbonate of claim 2, wherein said transition metal oxide is selected from the group consisting of MoO_3 , Ga_2O_3 , V_2O_5 , PbO , ZrO_2 , TiO_2 , CdO , Fe_2O_3 , CuO , MgO , Y_2O_3 , Mn_3NiO , ZnO , Nd_2O_3 , Co_2O_3 , RuO_2 , Nb_2O_5 , Cr_2O_3 , and a mixture thereof.

4. (withdrawn) A reaction apparatus for the preparation of an aromatic carbonate, comprising

a) a reactor equipped with a filter, which is located inside the reactor, for preventing the output of a heterogeneous catalyst and only outputting reaction solution;

b) a reaction solution circulation pump that is connected to the side of the reactor on which the filter is equipped;

c) a heat exchanger, which is connected between the reaction solution circulation pump and the reactor, for raising the temperature of the reaction solution that is supplied from the reaction solution circulation pump to a desired reaction temperature and evaporating it; and

d) a distillation column, which is connected to the upper portion of the reactor, for separating the evaporated reactants that are generated in the reactor and the heat exchanger into high boiling point components and low boiling point components and then condensing the high boiling point components to withdraw and direct them to the reactor and outputting the low boiling point components in a gaseous form.

5. (withdrawn) The reaction apparatus for the preparation of the aromatic carbonate of claim 4, further comprising e) a heat exchanger for cooling, which is connected to the upper portion of the distillation column, for condensing the low boiling point components that are supplied from the distillation column in a gaseous form.